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In This Issue

The Members' Forum

Translating High Labor Rates Into Lower Costs.
The Basis of Financial Management.

The Management Index

Abstracts and Descriptive Notes of Company Activities Including

Financial Management
Office Management

Production Management
Sales Management

Survey of Books for Executives

Management Engineering. P. F. WALKER, M.M.E.

The Psychology of Selecting Men. DONALD A. LAIRD.

The Investment Trust. LAWRENCE M. SPEAKER.

Elements of Business Statistics. ROBERT RIEGEL, Ph.D.

Control of Credit as a Remedy for Unemployment. J. R. BELLERBY.

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AMERICAN MANAGEMENT REVIEW

July, 1925

THE MEMBERS' FORUM

Translating High Labor Rates Into Lower Costs

Herbert Hoover's prediction of "Higher Living Standards" and, on the other hand, the claims of professional forecasters that present prices of manufactured products must decline, offer essentially a problem of personnel management, the solution of which must reconcile high labor rates with lower costs.

With a restricted immigration policy, and with average wages in industry approximately 100 per cent above "pre-war," while the cost of living has increased only about 72 per cent over pre-war, labor's real wages show no signs of a decline. On the other hand, our productive capacity is so far above current needs that competition is stimulated and our position as a creditor nation is bound to result in increasing imports if Europe's debts to us are to be paid.

Increased Wages Through Greater Production

How can both increasing wages and lowering prices occur at the same time without wrecking Industry? Obviously only by increasing the units of production at a ratio greater than the increase in money wages. If labor is to get a high wage it must produce more, as only out of production can the producer be paid. Therefore if real wages are to be high, production per man must increase. Equally, if and when labor produces more, it is entitled to, and must receive, a higher award.

The solution of the problem lies in the complete co-operation and co-ordination of all departments of the business, particularly those responsible for Cost Accounting, Personnel Management, and Engineering. It is the function of the Cost Accountant to collect facts and figures, make comparisons, point out inefficiencies, wastes, and prohibitive costs so that the Engineer or Technical Expert may develop new machinery, new processes

and new methods. The generally accepted or standard functions of a Personnel Department, as gradually evolved through years of the "cut and try" method are:

1. Employment: that is, finding and keeping in touch with the source of labor supply, hiring new help as it is needed, and introducing the new worker to the job.
2. Education and Instruction: so that the worker will become increasingly valuable to himself and his employer.
3. Physical Welfare: including physical examinations, health and safety work, accident compensation, etc.
4. Working conditions: improving the conditions of employment, maintaining an equitable wage and providing continuity of work.
5. Assisting workers with help and advice to meet conditions arising outside of their work and helping to improve their economic status.

Naturally there are many variations of the above program, but in the majority of cases, the functions performed will logically fall into the five classifications above mentioned.

Now let me suggest that here is a broad field for accounting co-operation that has so far been poorly served. Where are the elaborate and expensive Welfare plans of the war and pre-war periods? Did they pay? Were they worth while? If so, why were they discontinued? What is the cost of labor turn-over, that is, the cost of hiring and instructing new employees, the loss of output involved, the increase in overhead? Let us figure also the real cost of Industrial Accidents not only on time lost and compensation paid, but the loss of earning capacity often extending over a long period of time.

How much can we afford to pay to educate foremen, chief clerks and other supervisors to properly appreciate these "turn-over" and "accident" costs. What is the return from physical examinations and general health work? It is obvious that if labor is to receive higher real wages, these problems of cost and value must be determined, and all waste eliminated.

The program I would suggest for solving the problem we are considering, would be a full use of the following:

1. Records: It is possible in the matter of records, to go too far, so that information is buried instead of being brought to light. Records should be clear, complete yet concise, containing no duplications, and as simple as it is possible to make them. We need records of work done, the time consumed, the effective units of production, the waste or scrap, wage rates, amount of supervision and many other factors. Without these records no progress can be made, for we have no starting point, no base on which to build and no mark set to be improved upon.

2. Analysis: With the pressure of competitive price reductions forcing our hands, we cannot afford to "bury" records, we must use them. As we demand of labor that it work or get off the payroll, so we must insist that records be used or be discontinued. This means "Analysis"—digging in and getting out the meat—continually comparing one record with another and setting up the results of the analysis in usable form, so that progress may be made.
3. Classification: The logical result of careful analysis is bound to be a classification of operations—a more effective arrangement of the work to be done—its separation even into motions and movements, as is done in regular time study work. It is also necessary to relate operations to different classes of labor, whether skilled or unskilled and if skilled, the degree of skill required, and whether the job should be done by a man, a girl, or a boy. The possibilities here are endless and will give full scope for the exercise of sound judgment.
4. Standards: A natural outcome of working along the lines so far outlined is of course the establishment of definite standards, that is, standards of work—standard methods—standard conditions of light, heat, humidity, space, etc., and for all those things or circumstances that affect the volume or quality of production and help in the elimination of all waste effort.
5. Mechanical Aids: I doubt if we appreciate as we should the extent to which Mechanical Aids have taken away the drudgery of human effort. If it be true that the Railroad, the Automobile, the Aeroplane, the Telegraph, Telephone and Radio have almost eliminated distance, it is only true because they have multiplied the effectiveness of our effort.

We should then give the mind and hand of the worker all the Mechanical Aids we can to increase both his effectiveness and his compensation. I cannot believe these "Aids" tend to make the worker himself mechanical. In fact, the very reverse is true. The old-time bookkeeper was infinitely more mechanical and restricted in his outlook than any bookkeeper of to-day. As well charge the Railroad Engineer with being more mechanical than the driver of a horse and wagon. The romance is not yet taken out of business nor is our imagination restricted except by the limits of our own minds.

The answer then is not arbitrary reduction of wages, but closer co-operation, properly applied incentives, and better management.

D. C. LOWLES, *Auditor,*
The Cleveland Metal Products Company.

The Basis of Financial Management

Management's job from within is based on the human relationships that must exist between employees, some of them doing one thing and some of them another. The American Management Association really has as its aim the solution of the problem of getting together all of the personnel under a management for the betterment of the result which in the aggregate they can produce.

What is one of the big factors in accomplishing this result? It is the confidence which any group of people have in each other. If every individual has a known degree of justified confidence in his fellow employee, he can work with him to that extent without friction and he can, because of that work without friction, let him do his work without feeling that he has to help him do it or join in the immediate responsibility for its being done.

For example, one may say that financial management has no real relation to personnel. Why make the American Management Association consider financial management? That is a job entirely apart! The truth is that the correctness of the financial executive's work depends on the correctness of the work of every other individual—whether in the financial department or elsewhere in the organization. The definiteness of the work which the financial man has before him depends on the definiteness and reliability which attaches to the work of other individuals for whose ability other executives than he must assume responsibility. If I have the financial responsibility in our institution and I have a justified confidence in accepting a statement of fact from the other executives of responsibility—either from the standpoint of their producing capital or utilizing it—then, and only then, can I depend on any plans which I may make for having confidence in the statements on which I must rely.

After all, is not management's fundamental job the development of the policy and procedure from which will result this justified confidence which the personnel must have in one another so that each may go along his own path of responsibility, each doing his own work and accepting the plans and the results of the others to the extent that their responsibilities are interdependent on a knowledge of what the other is going to do?

Reports and procedures in themselves will not develop this necessary and justified confidence, but without them—even though the respective individuals may solve their own problems—there will not result that necessary confidence which others must have in them and the results which they produce, and management will not attain the big success which is expected and should be possible in co-ordinated big business.

LOUIS F. MUSIL, *Director of Finance,*
Henry L. Doherty and Company.

THE MANAGEMENT INDEX

Abstracts and News Items

GENERAL MANAGEMENT

A. M. A. District Conference

On Thursday, April 23, the Philadelphia membership of the American Management Association held a luncheon and conference of notable interest. Ninety-two executives, representing almost as many industries from Philadelphia and vicinity, attended the luncheon and approximately a score more came in to the afternoon sessions. The object of the conference was to bring together executives for the presentation of topics of common interest and for an interchange of management ideas and practices.

Mr. Albert Hill, treasurer of the Atlantic Refining Company, served as a very genial presiding officer. He delivered a short address on "The Responsibilities of Management," in which he pointed out that management bears a responsibility not only to its stockholders but to its employees and the general public as well.

Mr. C. C. Parlin, manager of the Division of Commercial Research of the Curtis Publishing Company, gave a very interesting talk on the subject of "Forecasting Sales and Production." By the use of carefully prepared charts, Mr. Parlin showed that it is possible to analyze the sales possibilities of particular localities, so as to set quotas and estimate future needs. The discussion which followed Mr. Parlin's talk revealed a keen interest in the subject.

Mr. H. C. Towle, works manager of the New York Shipbuilding Corporation of Camden, presented a very thoughtful paper on "Setting the Production Pace." The

necessity of accurate planning and scheduling and the desirability of eliminating seasonal fluctuations in production were pointed out as important angles of the production problem.

"Training of Supervisory People" was the theme of the stirring address delivered by Mr. P. C. Staples, vice-president in charge of personnel of the Bell Telephone Company of Pennsylvania. That training takes up the burden immediately following careful selection of a new employee, and that from such trained employees the supervisors should be recruited, were well founded tenets in Mr. Staples' creed. His delightful frankness in presenting individual cases which had come to his own attention was appreciated by his auditors, all of whom left the conference with a greater realization of the need to train men constantly for the future of an organization. *City Club News.*

Methods of Research in Industrial Relations

"Procedures followed in studying the Industrial Representation Plan of the Colorado Fuel and Iron Company" was presented by Miss Mary Van Kleeck of the Russell Sage Foundation at a conference held under the auspices of the Personnel Research Federation in Washington on May 22 and 23. The subject of the study and specific findings were not discussed, attention being focussed on the definition of the problem for investigation, determination of the scope, choice of sources of informa-

tion, methods of using them and checks upon their accuracy.

Among those who discussed Miss Van Kleeck's paper were Mr. G. H. Bowers of Curtis, Fosdick and Belknap, Mr. H. C. Metcalf of the Bureau of Personnel Administration; Ethelbert Stewart of the Bureau of Labor Statistics, and Whiting Williams. Interest centered in the use of the interview as a method in Industrial Research, the influence of the investigator's point of view on the findings and the question as to whether some of the most important phases in employee relations can be investigated as facts or only as attitudes.

A paper was presented by Mr. Leonard D. White of the University of Chicago on "Methods Used in the Study of Morale of Employees in the City Hall, Chicago." The study consisted of an explanatory inquiry made largely by the interview method into the psychological environment of the employees.

"The Interview from the Psychological Point of View" was discussed by R. S. Woodworth of the National Research Council, and the constant variation between reports of the same situation by different individuals was brought out.

Dr. C. R. Mann, of the American Council of Education, spoke on "Terminology" and stressed the point that all problems of research methods can be related by begin-

ning at the bottom and considering basic terminology. *Notes by a Member.*

The Contribution of Science to Manufacturing

Although industry is already deeply obligated to science and dependent upon it for future progress it is strange that so large a proportion of manufacturers still are committed to worn-out methods. The practical man too often confounds science with mere theory and so sees little place for it in his business. An enlightened self-interest should lead him to welcome its teachings and generously support research. By A. D. Little. *The Annals of the American Academy of Political and Social Science*, May, 1925, p. 1:8½.

What's Back of Success in Business?

Why does one man succeed in business and another fail? Five cases are cited based on actual experiences, and from these examples a few of the necessary factors for success are given: 1. Certain human qualities such as energy, honesty, etc. 2. Ability to analyze his market to determine the chance for success for the business as a whole or for a particular department. 3. Purchasing ability. 4. Sales and advertising sense. 5. Financial foresight and understanding. 6. Managerial ability. By W. D. Shilts. *The Goodyear News*, May, 1925, p. 7:1½.

FINANCIAL MANAGEMENT

An International Bank

Following the example of the Brotherhood of Locomotive Engineers and other American labor unions, a bank has been established in Vienna by Austrian trade unions and co-operative societies, while in Rome the National Institute of Credit has been serving societies on a national scale for some time. These banks now feel that the time has come to cross national boundaries and unite their energies toward

the founding of a great International Co-operative Bank to promote industry and commerce and good will between all lands. *Leighton's Magazine*, May, 1925, p. 7:¼.

Office Budgetary Control

The first fundamental of budgeting is a clear and correct organization plan, which should reveal responsibility for: 1. Policies—by the Manager. 2. Plans—by the Superintendent. 3. Particulars—by the

Foremen. This will avoid duplication or overlapping in the supervisory personnel. There follows an analysis of the transactions of a company. An enterprise will require as many separate and distinct budgets as it has classified earnings, expense, construction and balance sheet accounts. These are discussed, also final budgets, including steps in their preparation. The budget must be susceptible to revision at any time such action is desirable or necessary. Once approval is obtained, the possessor should hold full authority to act within the limits of his approved budget, except as the chief executive may find it necessary to rescind approval. It is not felt that the coincidence of actual results with estimated is a criterion of good management, but for actual results for any one month to agree closely with the latest previously expected results for that month is a most satisfactory criterion of able management. By H. A. Fountain. *Office Manager*, July, 1925, p. 197:3.

Safety Through Directing Directors

No more dangerous man exists in a banking institution than that agent who attempts to conceal from his directors any information concerning its loans and investments, or tries to prevent the proper control and supervision by the board. Three means of real supervision may be found in limiting powers of bank officers to make loans or to grant lines of credit without prior authority, recording each borrower's line, and keeping complete list of overdrafts and cash items. By R. W. Goodhart. *American Bankers' Association Journal*, June, 1925, p. 746:1¼.

State and Municipal Borrowing in Relation to the Business Cycle

Much could be accomplished if large, long-lived institutions, including railroads, great industrial corporations, universities, colleges and churches and, above all, governmental bodies, states, cities, counties, and the Federal Government, would make far-reaching plans in connection with their construction work and in connection with

that part of their buying of staples which can be readily retarded or accelerated in dull periods, and withdraw in considerable measure from the markets in periods of intensest activity. Their purchases and construction work would be put through more cheaply if they could pursue such a policy systematically. Their budgets would gain by such a procedure. The advantages to general business of being relieved from strain at a time when production is already at a maximum, and of having production encouraged at a time when there is much unemployment and dull business, would be very great. By Benjamin M. Anderson. *Chase Economic Bulletin*, June 10, 1925, p. 3:2.

Budgeting Your Factory May Help You at the Bank

In general, the more a man knows about his business when he talks with his banker, the better his credit will be. When backed up by an estimate of production, sales and collections, a schedule of financial requirements makes negotiation easier for both banker and manufacturer. A simple budget is usually a great help, but a complicated one may be simply another expense. By John J. Geddes. *Factory*, June, 1925, p. 919:1¼.

What Is the True Annual Charge on Capital?

A discussion of the effect of variations in the purchasing power of the dollar on plant replacements is thus summarized: 1. Modern money is a medium of exchange based in general on the gold standard, and therefore cannot be stable. 2. High price levels mean low purchasing power of the dollar and vice versa. 3. However much modern business executives may desire to steer clear of the jargon of economics, it is essential to assess accurately all factors bearing on profits. The result is to effect real, not imaginary savings. 4. True annual charges on power equipment are only obtained when an allowance is made for the depreciation, or otherwise, of the dollar over the period of the bond or debenture

issue. By Lesslie R. Thomson. *Industrial Canada*, June, 1925, p. 58:2.

Where the Dealer Gets Off on Time Payment Financing

An analysis of methods of financing instalment sales in such lines as the paint industry, the automobile industry, in the residence heating system field, the electrical appliance field, and the piano field. After all, no one but the manufacturer can decide whether his product is one which can be advantageously sold on the instalment plan. Points to be considered in selling by this method follow. By Roland Cole. *Printers' Ink*, May 28, 1925, p. 81:8½.

How Can Cost Work Be Simplified?

Some of the places where costs of operating the cost system may be cut down are pointed out. Before deciding where

costs may be cut, a careful analysis of the uses of the data derived is necessary. If absolutely accurate data are needed because of the seriousness of the official decisions dependent thereon, whatever costs are necessary to secure accurate data must be incurred, of course. After determining where costs may be cut, the manner of making the cuts is suggested. By F. H. Corregan. *National Association of Cost Accountants*, June 1, 1925. 7 pages.

Practical Results of Budgeting

Business forecasting in the Thomas A. Edison industries, illustrated by tables showing a condensed budget, a balance-sheet-profit-and-loss statement, a treasurer's department cash estimate, and a purchasing department estimate of purchases. To be continued. By Ralph H. Allen. *Management and Administration*, June, 1925, p. 527:4.

OFFICE MANAGEMENT

Organization: *Job Analysis, Employment, Pay, Tests.*

On Mental Tests and Racial Psychology

Mental tests are supposedly made up of materials which, aside from schooling, are common in the experience of the persons being tested. It is not sufficient, however, that the individual shall merely be exposed to the materials of these tests. There must in addition be similar incentives to become acquainted with them. In addition to the above two presuppositions there must be a similar incentive to achieve under test conditions. It is contended that any test materials which violate these conditions fall short as a measure of native intelligence. All of the tests made thus far violate one or more of these assumptions when applied to different racial groups, hence the results are highly dubious. By Howard H. Long. *Opportunity*, May, 1925, p. 134:5

College Vocational Guidance

The Personnel Research Federation, American Council on Education, National Research Council and the Advisory Council of the proposed Bureau of College Personnel Research met in Washington on May 22 and 23 to consider College Vocational Guidance.

Discussion upon reports from different colleges and universities brought out the very widespread need for vocational guidance among college students, the relation between scholastic standing and the life career motive, the need for the collection and dissemination of vocational guidance information and extending job analysis to professional occupations.

The importance of cumulative and comparable records of students and experi-

ments with objective examinations were reported upon by Mr. Ben D. Wood of Columbia University.

Mr. C. S. Yoakum told of the system of student interviewing at the University of Michigan and methods used in preliminary investigation, counseling, placing and following up placements.

Rating scales and the procedure of the student interview at Northwestern University were discussed by Mr. L. B. Hopkins.

The recommendations for study and research made by the committees which reported at the closing session of the conference covered a wide range of projects relating to administration of personnel service, examination methods, vocational counseling and personality traits. *Notes by a Member.*

Why Workers Choose Jobs

Results of a questionnaire to adult males at a New York employment exchange, 1920-1923. The following eight appeals seem to be important: Interest, ambition, outside advantages, duty, fitness, financial reasons, family traditions, necessity. The interest motive and the ambition motive

are by far the strongest, being superior by three times to the appeals to altruism, or training, or to miscellaneous advantages accompanying the occupation, which rank, however, significantly higher than any of the other appeals in the list. The financial incentive to work is found to be of minor value as an industrial appeal. This latter checks with certain opinions advanced by industrial psychologists. By Douglas Fryer. *Management and Administration*, June, 1925, p. 519:2.

Three Tests for a Boy

If you have a boy of 14, call him into your office and see if he can perform these three simple tasks:

1. Add up correctly at sight a column of figures in the ledger or petty cash book.
2. Write and spell correctly, in a round hand, an ordinary letter on a simple business subject.
3. Examine a document accurately and not pass any mistakes in it.

These three tests were suggested recently by Sir William Bull. He says that the whole of our scheme of education is on wrong lines. *The Efficiency Magazine*, June, 1925.

Administration: Regulations, Supplies, Communications.

Who Should Sign Letters—Company or Dictator?

It is a growing practice among the more progressive houses to have all letters signed by the person who dictates them. The featuring of the individual instead of the organization is followed in many branches of business besides the writing of letters. Several of the railroads placard the names of their ticket salesmen. In the dining cars, the roads post the name of the stewards in charge. Many banks announce the name of the teller occupying a particular cage. Clothiers introduce the customer to the salesman who has been assigned to wait on him.

The criticism has been made that large commercial organizations are too machine-

like, and so management has come to believe that it must show in every way possible that business is made up of individuals. Editor. *Printers' Ink*, May 28, 1925, p. 76:1.

The Principles Underlying Office Management

The office offers a fruitful field for planning and scheduling, beginning with the incoming mail. Correspondence can often be cut down by one-half. "There are many ways of lessening work: not doing what is unnecessary, shortening what is necessary, scheduling so as to know how long it should take and what could be cut, despatching, always through those who are competent." A list of questions fol-

lows which if used for self-analysis should show any office manager the weaknesses of his office. By Harrington Emerson. *Office Manager*, July, 1925, p. 205:2.

Running Office Equipment by Electricity

In this article is shown the enormous output that can be obtained from office appliances by means of electrical equipment. Among the electrical machines described are the electrically driven duplicator, type-writing machines, machines for addressing envelopes and general correspondence and dictating machines. By E. T. Ellis. *Business Organization and Management*, June, 1925, p. 166:2.

A Well-rounded Group of Office Methods

Over a period of years the Hupp Motor Car Corporation has found out many ways

to cut the cost of office routine and at the same time obtain better executive control over office procedure. The points covered are filing, the use of the telephone, messenger service, methods of handling mail and janitor work. By R. C. Schumann. *System*, June, 1925, p. 737:3.

Enforcing Economies Through Better Supply Control

The question of making adequate provision for the stocking of supplies and stationery in banks is here considered. A simplification of forms is important in order to avoid duplication. Centralization of all purchases in the hands of one man will enable the bank to secure better prices, terms and service from outside printers or suppliers, to make adequate provision for the care of stationery on hand, and to hold down purchases to a minimum. By Warren D. Bruner. *The Bankers' Equipment-Service Bulletin*, May, 1925, p. 5:2½.

Training and Education: Schools, Libraries, Employee Publications

Locked in the Minds of Employees

There is a great deal of information and energy going to waste by which a bank could profit if it would systematically develop new efficiency in the members of its staff. The employee problem is not one of more employees, but of more efficiency. A method of developing greater efficiency which invariably meets with the full co-operation and approval of employees is through a series of written examinations on banking subjects. Another plan consists of classes organized for the study of special subjects. An advance class might profitably be held in business administration.

Instead of trying to increase the efficiency of employees by admonition of what not to do, better results will be secured if employees are shown what to do and how to do it. By W. R. Morehouse. *American Bankers' Association Journal*, June, 1925, p. 747:3.

Developing Assistants and Ourselves

The distinction between developing and training is illustrated by the old-fashioned bookkeeper who was well trained but not developed. Essentials to develop assistants are: Responsibility, vision, inspiration and balance. Responsibility coupled with authority must be given to assistants commensurate with their experience and ability. It is immaterial whether subordinates like their superior personally. Leadership is greatest when supported by the belief of the subordinates in the ability of the leader. By T. G. Woolford. *Office Manager*, July, 1925, p. 187:3.

Making Salesmen Out of Bank Employees

A business contest at the National Bank of Commerce in St. Louis is described. This was inaugurated in order to produce a better interchange of interest between the

departments. A preliminary step was to establish a central filing system, by reason of which it was possible not only to arrive instantly at those customers who did patronize more than one department, but it also secured an immediate cross section of their standing, connections and ability to make use of the other financial facilities. That the interest might be kept up, two publications were issued weekly, for each

of the two squadrons. Another means was the placing of large posters upon the walls containing announcements relative to the contest.

As a result of this contest the friendly spirit of the institution toward the public was greatly augmented, and the loyalty of its employees to all departments was increased. By W. B. Weisenburger. *Trust Companies*, May, 1925, p. 635:2½.

Records: Forms, Charts, Cards, Files, Statistics

Records of the Stores and Receiving Departments

In general there are two concepts of the scope of authority which the purchasing department should possess. The broader viewpoint is that the purchasing department should be responsible for incoming material from the time the Purchase Requisition is sent to it until the material has been delivered to the department requesting the material. This is a usual arrangement in a small or moderate sized company, in which case the organization of the purchasing department comprises five main divisions; namely, purchasing, traffic, receiving, inspection and stores sections. In very large industrial concerns, however, the purchasing department confines itself strictly to the work of buying. But in either form of organization certain basic, essential records must be kept, which are discussed here in practical detail. By John H. MacDonald. *The Office Economist*, May, 1925, p. 5:2¾.

Office Management in Your New Business Department

The mechanical aids for sales management, advertising management and publicity management are described. For solicitation management a prospect file, a solicitation report file and a new business credit file are suggested. For advertising management a contract file with expiration tickler, an order file, a clipping book, a delivery ticket file, a stock file, a sample file of printed matter, an art file, a cut file, a

requisition file and a source file. And for publicity management a card index of publications, a bank data file, a personality file, a photograph morgue and a scrap book. By G. Prather Knapp. *The Bankers' Equipment-Service Bulletin*, May, 1925, p. 7:2¾.

Color in an Office

Color has a place in the mechanics of office operation, and in this field there are possibilities not yet realized. The Bank of the Manhattan Company is an institution where the visible index with color references has been worked out to an extreme degree of usefulness. By means of colored slips it is possible to tell at a glance in which division the folder desired is to be found. Color is again resorted to in the folders themselves.

File cards or paper upon which accurate concentrated work is to be done should not be in the deep colors of red and green and blue, as these are likely to produce considerable eye fatigue.

Where there are comparatively few salesmen covering distinct territories, it is possible to have the order blanks for each a different color. This is helpful in keeping them segregated in the files. It is a good plan to have different colors for invoices and statements, and inter-company reports and memoranda may receive better attention if they are known by their color. By Eleanor Boykin. *Credit Monthly*, June, 1925, p. 9:1¾.

PRODUCTION MANAGEMENT

General: *Promotion, Organization, Policy, Development*

Capital Needs of Electrical Plants

Small, "one man" business ventures are undertaken without a fair comprehension of the capital requirements of the industry. As the business expands the problems of financial organization constantly increase, and in time the business reaches the point where it is discovered that the wisest of trade policies are essential to commercial prosperity. The small companies are particularly prone to confine production to strictly standard products which many well developed companies are manufacturing, when they might better engage in specialty production. The electrical manufacturing industry is apt to cover up unsound commercial policies and inadequate cost-keeping information by a constant endeavor to increase volume of sales for the purpose of reviving declining profits.

In a word, the electrical business calls for management of the highest order and a most careful determination of commercial policies essential to financial success. *The New York Times*, June 7, 1925.

Southern Furniture Plants Apply Modern Management with Success

A statement of five management principles (Organization, Objectives, Control, Standards, Rewards) is accompanied by a chart showing their interrelation. Two organization charts are shown and a set of standard practice instructions, comprising the responsibilities of the factory manager. By Charles F. Scribner. *Management and Administration*, June, 1925, p. 521:4.

Plant: *Location, Lighting, Heating, Ventilation.*

Windows: Tools of Production

It is only necessary to inspect a few factories chosen at random to realize the profit opportunities overlooked, even in this day; on the one hand, opportunities for greater use of daylight; on the other hand, economies that a proper maintenance organization would bring about. Heating costs, the health and spirits of workers, fire prevention—all tie in closely with the window question. The far-reaching effects upon production of larger window areas are described, with such points as steel versus wooden sash, different methods of installing steel sash, ventilation difficulties with

wooden sash, and characteristics of sheet metal frame and sash. By K. D. Hamilton. *Factory*, June, 1925, p. 920:5.

The Magnesite Floor in Industry

A description of the properties of this clean, tough and attractive flooring, which stands up under heavy service. It is dust-proof, waterproof, fireproof and capable of resisting acids and alkalis. Considerations in installing magnesite floors are mentioned, and a comparison of relative expense is given, also features of maintenance. By Harold B. Kilmer. *Industrial Management*, June, 1925, p. 368:4.

Industrial Economics: *Labor and Capital, Legislation, Wage Theory, Immigration*

The Minimum Wage

The different types are classified according as their object is to secure a minimum subsistence, a minimum of need, or a

minimum of comfort. Two methods of establishing minimum wages are also discussed: The direct method—fixing by law; and the indirect method—fixing by method

which is subsequently given the force of law. The indirect method seems to afford the greatest opportunity for progress. A clear distinction must be drawn between individual and collective minima; a certain average level can be fixed for the minimum subsistence and the minimum of need, but the minimum of comfort is too individual and elusive to admit of rigid definition. The three types of minimum wage, namely—1. the "anti-sweating wage;" 2. "the minimum wage rate," and 3. "the standard-of-living wage" are discussed as to their most outstanding points. By Theodor Brauer. *International Labour Review*, May, 1925, p. 682:19.

New Method of Financing Railroads

In New Zealand all of the railroads are owned by the State. When new lines or roadbeds are to be constructed, the work is divided into sections, the size of the section depending on the difficulties of the work in each case. The job, reckoned at a price of so much per unit of quantity or measurement, is then offered to a party of workers, who, if they accept, become the contractors. The work is measured periodically, and full payment is made to the men, who divide the money among themselves according to the time worked by each one. The selection of the men to work on a particular job is left almost entirely to the men themselves. Materials, explosives and other necessities are supplied to the men at cost by the government.

This scheme for road building not only cuts the initial cost of construction, but keeps down the rates that must be later charged by the government to users of the railroads in operation. *Leighton's Magazine*, May, 1925, p. 7:¼.

Industrial Service

Labor believes that a circuitous method of getting a thing done is something to be desired and that anything which creates more work is also to be viewed as altogether desirable. But the truth is that the modern industrial régime is not an arbitrary set-up.

It is unfortunate, however, but true, that our economic progress gives evidence of sluggishness. The per capita production in the United States has not shown the customary annual increase.

It cannot be too strongly emphasized that under our modern industrial system, the workmen engaged in the various industries combine to satisfy the varied wants of society. The consciousness of co-operation is lost but it is there nevertheless. *Connecticut Industry*, June, 1925, p. 14:1½.

Unions Looking Into Work Costs

The international unions and locals of the American Federation of Labor have been instructed to start a survey of labor and production costs. This is not being undertaken in prospect of a serious demand for higher wages, but the popular belief is that business will be more active if costs are brought down. The move is a defensive one, to counteract a possible trend toward wage reductions in the near future. *Industrial Relations: Bloomfield's Labor Digest*, May 23, 1925.

Efficiency and Wages in the United States

Increased efficiency should be the watchword of the American employer all along the line rather than reduction in wage rates. A tendency of the times which can of course be not only checked but annihilated by a persistent and radical reduction in wages is that of the wage-working masses to turn their savings back into industry and become the source of capital supply for business.

With plenty of capital available from the savings of industry, and with the rapid increase in the productive efficiency of labor, we are headed toward another trouble, which is the overdevelopment of industry. This is a very serious problem. Out of it grows nine-tenths of our unemployment. From it flame up our booms, which precede our panics. By James J. Davis, United States Secretary of Labor. *Monthly Labor Review*, May, 1925, p. 957:4¾.

Employment: *Classification, Selection, Tests, Turnover*

Co-operation—A Constructive Force

President Loomis of the Lehigh Valley Railroad is deeply interested in the welfare of all the employees. Simple and effective methods have been established whereby he is at all times in close touch with them. He felt that more care should be given to the selection of new employees and in preparing them for and installing them in their new jobs. These men should be followed up and a system of service rec-

ords developed for each man in the organization. Therefore, one man was selected from each of the seven operating divisions to report to the division superintendent, and devote all of his time to the personnel question on the division. The Lehigh Valley has profited under such leadership. Today the men are very much with the management in trying to improve the service and the prosperity of the road. By Roy V. Wright. *Railway Age*, May 16, 1925, p. 1210:8.

Employee Service: *Hygiene, Recreation, Lunch Rooms, Stores*

What Rehabilitation Is Doing to the Injured Worker

During the year 1924-25, 6,097 physically disabled persons were rehabilitated in the 36 states that are carrying on this work. Sixty per cent. of the disabilities were due to industrial accidents. New York State alone shows 575 persons rehabilitated during the past fiscal year. The money earned by these people represents a total of \$627,900. In addition to this the productive power of the state has been increased through the rehabilitation of these injured workers. By B. C. Riffel. *National Safety News*, June, 1925, p. 11:2½.

Physical Examination of Industrial Workers

Among the examples of results of physical examination of industrial workers as given by the secretary of the Conference Board of Physicians in Industry is the following: Physical examination of a group of textile mill workers employed on industrial processes resulted in 14 per cent. increase of production by 6 per cent. less workers than previously employed. This 6 per cent. was transferred to other employment more in keeping with their physical condition. In a rubber boot wear factory in which imperfect work was going to the trade, an examination of the eye-

sight of the inspecting force resulted in showing 20 per cent. had such defective vision as to be useless in that work. *Industrial News Survey*, June 1, 1925.

A Well-Equipped Club for Employees of Cotton Mill

Generous provision has recently been made by Canadian Cottons, Limited, for the welfare of their employees, in the form of a handsome and well equipped club house. An interesting feature of the erection of the building was that it was done chiefly by employees of the cotton mill, which was running on short time during the period, thus mitigating the financial difficulties caused by business depression. *Industrial Canada*, June, 1925, p. 57:¾.

A Practical Campaign to Save Eyesight

As a result of an accident campaign of the R. K. LeBlond Machine Tool Company extending over four years it was shown that instead of more than five thousand bodies being removed from eyes of employees in one year at a cost of more than \$3,000, there were only 789 pieces removed in one year, at a cost of \$7.50. In the first place, a bulletin board propaganda was started with material furnished by the National Safety Council. Some serious eye conditions were found to be due to light,

heat and chemical rays and poor illumination. In this connection, it is stated that intense light is a very prolific source of serious eye conditions. By Sanford DeHart. *Industry Illustrated*, June, 1925, p. 23:1½.

The Cost of Industrial Welfare Schemes

In such instances as canteens, dental and optical schemes, clubhouses and institutes, it is usually found that the firm meets the capital charges and certain overhead charges, while the employees meet the current expenditure by the amounts they pay for the service rendered.

Taking the figures of twelve firms who have supplied particulars of the cost per capita, the average arrived at is 20s. per head per annum. It is found that the larger the number of employees the less in proportion is the cost of welfare. By G. H. P. *Industrial Welfare*, May, 1925, p. 167:1¾.

What British Industries Are Doing for the Workers

Much legislation is in effect relating to the working conditions in various types of factories, but the more progressive firms have anticipated the Acts of Parliament. Insurance against illness and unemployment are now compulsory by legislation, but certain firms provide a supplementary benefit through a local pension scheme. Recreational activities are common throughout Britain. Playing fields for cricket, tennis, hockey, football, and similar sports are provided. In certain cases, a nine-hole golf course is available and putting greens are not unusual. At the Bournville works of Cadbury Brothers there are 110 acres

of recreation grounds, while the factory covers less than 35 acres. Physical training is also an important feature. In certain factories, each boy and girl receives one lesson each week up to the age of 18, and between 14 and 16 they have one swimming lesson a week. By James F. Whiteford. *Industry Illustrated*, May, 1925, p. 14:3¾.

Service Rendered by the Information Bureau

Each year the information bureau of the Schenectady Works of the General Electric Company establishes an Income Tax Bureau for the purpose of assisting employees in filing their returns.

License application blanks for all motor vehicles are issued to automobile owners. To help those filling out their applications, the weight, rate and model of passenger cars with an approved list of headlight lenses are furnished. Notarial service is also given which saves considerable time in securing plates.

Vacation information is extended; there are on display approximately 70 vacation folders, including road maps and illustrated booklets of resorts.

Complete files of two housing magazines are maintained, and advice is given regarding methods of financing, as well as general housing information. Sample specifications for frame dwellings are given away on request.

A room and board file is kept for the benefit of employees in securing furnished rooms or board.

The information bureau is a part of the Industrial Service Department and renders various other services in addition to those mentioned. Laura Kelle. *Schenectady Works News*, June 5, 1925, p. 22:1.

Training and Education: Schools, Libraries, Apprenticeship, Employee Publications, Bulletin Boards

Apprenticeships as Waste Savers

It has been estimated that the price for lack of training is annually \$25,000,000,000; 75 per cent. of the workers in the country

would be more efficient in other jobs. Apprenticeship can be made the greatest single factor in reducing this waste. A selective process takes place automatically during

the period of training and modern methods of vocational guidance make it possible to insure properly locating the majority of those entering upon formal apprenticeship. Apprenticeship means a skilled and intelligent workman, and one who applies himself to tasks for which he is best adapted. By H. A. Frommelt. *American Industries*, June, 1925, p. 17:2½.

Wanted: More Shop Apprentices

Why the metal working industries face an immediate problem in scarcity of skilled workers and how it can be solved. An outline of the program adopted by Milwaukee which is considered the ideal training system. Five definite suggestions are offered as a basis for discussion of future foreman training. By L. A. Hartley. *Iron Age*, June 4, 1925, p. 1647:2.

Cutting To-morrow's Labor Costs

A detailed description of how Milwaukee sows the seed of careful training in modern foundry practice and reaps more productive labor. A four-year regular apprenticeship program is given. This course is more of an education than mere training. By H. A. Frommelt. *Iron Age*, June 18, 1925, p. 1773:2.

Getting Trained Leadership for the Factory

A discussion of how to get the foreman to analyze production problems, including the practice of the National Cash Register Company (briefly) and the Dutchess Manufacturing Company (at some length). The introduction of employee representation at the latter company, started a series of foremen's conferences at which were discussed thoroughly: the work of the employment department, the use of the records made in the factory by the payroll department, how time studies are made, the work of the production control department, and a description of the problems of buying. Six conferences were devoted to discussion on cost accounting, for which actual figures and their distribution were

supplied by the cost department. The use of charts and graphs was also discussed, in the main dealing with the cost of living and wages. Personnel and production problems were also aired, as a result of which a foreman's manual has been developed. After a series of conferences on the cleaning and oiling of machines, a set of instructions was drawn up comprising 34 directions. By J. K. Novins. *Industrial Management*, June, 1925, p. 345:4.

Management Principles of Apprenticeships

The Falk Corporation system described by its apprentice supervisor. A vocational school was utilized for the technical instruction. This is supplemented by informal instruction in the company's classroom covering subjects ranging from shop conduct to taxation, dealing with every phase of apprentice life, even to his relationship as a citizen. In the school, before entering actual shop work these apprentices are weeded out, and those unsuited to any of the trades offered at the Falk Corporation are dropped from full time instruction. A contract is signed by the parents, and they are interviewed frequently. Awards are given for the three highest ratings for each department, meritorious work thus stimulating the instinct to competition. There has also been organized a cooperative plan with surrounding plants by means of which apprentices are exchanged, bringing about a flexibility of personnel which is highly desirable. By H. A. Frommelt. *Industrial Management*, June, 1925, p. 365:3.

Railroad Labor Institute at Labor College

An educational labor experiment is to be tried out at Brookwood Labor College during the week of Aug. 2 to 8, at Katonah, N. Y., when the first Railroad Labor Institute is to be conducted. The object is to help railroad men to get a comprehensive idea of the industry in which they are employed. The time will be devoted largely to the consideration of such sub-

jects as the beginning, growth and management of railroads, railroad labor organizations, government regulation, operation of railroads during the war, adjustment of railroad disputes, cooperative railroading and wages. *Industrial Relations: Bloomfield's Labor Digest*, June 20, 1925.

To Train Women Union Leaders

The National Women's Trade Union League offers scholarships for a six months' course of academic and field work in its training school for active women in

the labor movement. The object of the course is: "Organized labor prefers the conference table to the strike. That means that labor's best leaders are those who can accomplish most by conference and negotiation, and that labor must be organized for collective bargaining. But successful conference, negotiation and organization can be achieved only by men and women equipped for the purpose. They must have technique. All this means training." *Industrial Relations: Bloomfield's Labor Digest*, June 13, 1925.

Benefit Systems and Incentives: *Group Insurance, Pensions, Profit Sharing, Wage Plans, Suggestions, Vacations, Stock Ownership*

Group Insurance Criticized

Group insurance for the employees of railroad companies underwritten by insurance companies, does not meet with the approval of railroad brotherhoods. The president of the Brotherhood of Locomotive Firemen and Enginemen alleges that the motive behind the activity of railroads in writing group insurance is to break future strikes through fear of abrogation of group insurance policies, or of increase in payments in event that holders of such insurance join in strikes. *Industrial News Survey*, June 15, 1925.

Vacation with Pay to Training Camp Men

The General Electric Company has decided to give two weeks' vacation with pay, in addition to the vacation ordinarily due, to all those in its employ who attend training camp this summer. *Schenectady Works News*, June 5, 1925.

Anniversary Premium

The anniversary premium plan of the Yale & Towne Manufacturing Company was started four years ago on the theory that one of the elements that help to detract from profits in industry is high labor turnover. Other elements are lost time,

irregularity, failure to come in on time, leaving early and staying away without any really good reason. It was considered that the company would be justified in making a payment for regular and faithful service, although this method of dealing with employees must be in the last analysis a matter of judgment. *The Yale Panel*, June 15, 1925.

Contributory Group Insurance Plan

The Carleigh Mills Company, manufacturers of gingham, has established a group insurance plan on the contributory basis. The plan provides that each female employee who contributes to the plan shall receive \$500 life insurance protection and in event of illness or non-occupational injury \$5 per week for a maximum of 26 consecutive weeks. Each contributing male employee shall receive \$1,000 life insurance protection and benefit of \$7.50 per week for sickness or non-occupational accidents. *Industrial News Survey*, June 15, 1925.

Compensation for Disablement by Deferred Pensions

It is suggested that in cases where disablement is less than 15 per cent lump sum compensation should be treated as the single premium for a deferred pension pay-

able to the disabled man at the age of 50, or to his heirs if he dies before this age. This system has the twofold advantage of economical administration for the insurance institutions and greater real value to the recipients of pensions, who instead of a small pension when they are still young will receive a much larger amount when they are older and less able to earn their living. By Fritz Hool. *International Labour Review*, May, 1925, p. 659:5.

A Practical Application of the Bonus System

The Dominion Cannery, Ltd., have established the bonus system in some of their plants with remarkable success. Besides an increase per bushel in production, the quality of the product has been improved since the bonus system was put into effect. The system is simple and does not reveal to the worker the number of cans per bushel. It places the reward on individual effort, and prevents wasteful and careless methods. By Milo R. Daughters. *Cannery Notes*, June, 1925.

Clothing Business Turned Over to Employees

After 64 years in the clothing manufacturing business, M. Oppenheimer & Co., of Pittsburgh, have turned the business over to a group of employees of the concern, long in the service of the company, without cost. The equipment was sold to them at cost. *Leighton's Magazine*, May, 1925.

Employees and Management, Partners

Today there are fourteen railroads helping their employees to become part owners of their companies. The Delaware & Hudson has no plan applicable to all its employees, but makes deductions from the pay of agents, turning these amounts over to the association to apply toward stock purchases. The two roads which assist their employees in the purchase of their bonds are the New York, New Haven & Hartford and the Missouri-Kansas-Texas. The Union Pacific and the Lehigh Valley

purchase stock in the open market upon the order of their employee subscribers. The Southern Pacific and the New York Central cooperate with their employees in the purchase of their capital stock. The Chicago, Rock Island & Pacific and the Great Northern have offered their preferred stock for purchase by the employees. The Atchison, Topeka & Santa Fe and the Reading both offer their employees preferred and common stock, and a similar plan is in effect on the Illinois Central. The Pennsylvania has a unique plan, as the employees may purchase the stock as well as the bonds of the company, not through the company itself, but through either the Provident and Loan Association or the Mutual Beneficial Association of the railroad. *Railway Age*, May 23, 1925, p. 1260:3.

Further Profit Sharing by Toronto Firm

The Robert Simpson Company, of Toronto, has recently carried to a further stage the program started in 1919 for giving employees a share in the profits of the business. No employee may deposit more than 5 per cent of his or her wages and in order that those in senior positions may not benefit unduly, no employee may deposit more than \$2 weekly. The company contributes annually 5 per cent of net earnings after payment of depreciation and interest. A stock ownership plan has recently been put into effect whereby the officials and executives are given a more active participation in the company's affairs. *Industrial Relations: Bloomfield's Labor Digest*, May 16, 1925.

Employees Acquire Stock of Company

Simms Petroleum Company has authorized a plan to enable its employees to acquire stock of the company. The plan provides for payment of salaries of employees up to 20 per cent into a fund to be administered by three trustees. The company will pay into the same fund a contribution equal to 50 per cent of the amount paid by the employees. The fund

thus created is used by the trustees to purchase stock of the company at a price fixed by the directors. *Industrial News Survey*, May 25, 1925.

Aids Employees to Buy Y-T Stock

The new feature of the stock purchase plan of the Yale & Towne Manufacturing Company is that length of service will have no bearing whatever upon the opportunity to purchase. When the plan was launched

two years ago, only those employees in managerial positions or having been ten years in the service were eligible participants. As extra compensation for the services of the employee, the company will pay \$4 per annum on each share purchased for a period of five years, provided the employee is still in the company's service and that the stock so purchased belongs to the employee and has not been pledged for loans unless with the consent of the company. *The Yale Panel*, June 15, 1925.

Labor Relations: *Collective Bargaining, Arbitration, Employee Representation*

Negro Labor at the Crossroads

Intelligent appreciation of the relationship of the Negro to the world labor movement is in embryonic stage. The development of the proper relationship between the colored worker and his job is especially important at this time. The Negro must work to secure better jobs at adequate pay and to obtain recognition on the basis of merit to the end that colored workers will be offered positions in keeping with their fitness. Trained young men and women from our colleges are being offered the same menial positions that their predecessors filled efficiently without this training. Employers must be informed of the new army of trained young people growing in size and capacity yearly. By T. Arnold Hill. *The New York Age*, May 30, 1925.

The Industrial Round Table for Conciliation in Labor Disputes

In every industrial center there should be industrial round tables invested with such powers as are conferred upon them voluntarily by employers and employees having a misunderstanding to adjust. The best men and women representing the three great interests affected by strikes, namely employers, employees, and the general public, should be selected for such service. These people should be organized in peaceful times and be ready when necessity

arises. The round table should be nonsectarian, nonpartisan politically, and well balanced as to points of view. The discussions at meetings of such industrial round tables would have great educational value. Disputes could be adjusted and incipient strikes promptly settled. By Marcus M. Marks. *Monthly Labor Review*, June, 1925, p. 1:9½.

Maintenance of Contact with Employees of the Philadelphia Rapid Transit Company

Mitten Management bases the proper maintenance of contact with employees upon the following premises, each one of which is discussed in detail:

1. An attitude of complete frankness and fearlessness in all dealings with the employees.
2. Collective consideration on every point which involves the wages or working conditions of the employees.
3. A reasonable consideration for the social welfare of the employee in so far as it is affected by his employment.
4. The payment of a wage adequate to the necessities of life and comfort, and sufficient to permit of reasonable savings.
5. To encourage the laying aside of a regular part of the wage for protection against the rainy day.
6. Provision for participation by the em-

ployees in such increased earnings as are made possible by the increased effort of the employees.

7. Encouragement of the investment of this added wage in such a way as to make the employees owners as well as workers. By Dr. A. A. Mitten. *The Annals of the American Academy of Political and Social Science*, May, 1925, p. 108:7.

Spread of Arbitration in Settling Business Disputes

The number of commercial bodies maintaining arbitration tribunals is larger than is generally realized. Less than two years ago the Motion Pictures Producers and Distributors of America began an experiment in the use of arbitration to settle disputes between producers, distributors and exhibitors of motion pictures. In the settlement of these cases out of court, it is estimated that a million and a half dollars was saved in legal fees and costs. More harmonious relationships were established than had ever existed before.

The Silk Association of America has worked out the arbitration doctrine to its fullest extent. Among the national organizations which have arbitration facilities are the following: American Association of Advertising Agencies; American Exporters' and Importers' Association; National Wholesale Grocers' Association; Associated Dress Industries of America.

Appreciation of arbitration as a satisfactory method of settling cases out of court is not surprising when it is considered what the law's delay means to the business man. By Albert St. Peter. *Trust Companies*, May, 1925, p. 609:2¼.

What Our Employee Representation Plan Does for Us

In answer to a request for information on this subject several employees of the American Multigraph Company have set forth their ideas on the cooperative system in use in this company. *Leighton's Magazine*, May, 1925, p. 6:1½.

The Works Council Movement in Germany

The works councils in Germany correspond roughly to the shop committees in America, except that these are bodies of workers' representatives elected by voluntary agreement between employers and workers, while in Germany workers' representation is made compulsory by special national legislation. "No political party or industrial group will dare to put them out of existence on pain of jeopardizing its own life and disturbing the civil peace of the country." *Industrial Relations: Bloomfield's Labor Digest*, June 6, 1925.

The Human Factor in British Industry

A dissertation on the trends in British welfare, recreation, education and managerial activities, illustrated by several cuts and anecdotes. The most notable development in English industries during recent years is that recommended by the Whitley Committee. A brief description of such a Works Council in a factory employing 4,000 men and 5,000 women is outlined. By James F. Whiteford. *Industrial Management*, June, 1925, p. 349:4½.

Why We Have No "High Hats" in Our Business

The business of the Winchester Laundries, Inc., has increased threefold in five years. The employee-cooperation plan which helped along this growth, and the manner in which it was perfected is here described. By A. T. Downer. *System*, June, 1925, p. 761:3¾.

Gaining the Workers' Confidence

Employment methods, wage systems, works councils, educational methods, campaigns for special objectives are mentioned as some of the bases for establishing confidence of the workers. Concerns are more and more adopting specific measures for giving their employees the essential economic facts of the business. Confidence is the basis of cooperation. At one

plant, after several suggestions for increasing production at one point had been made by the management, without result, the manager asked the workers for a suggested means of relieving the "bottle neck." The men said that if the rate was

cut from \$1.10 to \$0.92 they would get the work out, and did. More and more successful management is recognizing the ability of workers to interpret the facts of industry. By P. F. Walker. *Management and Administration*, June, 1925, p. 541:2.

Planning: Job Analysis, Standardization, Routing

Simplification: Has It Fulfilled Its Promise?

A survey in which many industries report on results, both favorable and adverse. Taken as a whole, the evidence which the inquiries have produced gives a distinctly affirmative answer to the question. If a frank examination of simplification discloses some drawbacks it will be possible for industrial executives to search out means for checking excesses and offsetting weaknesses. *Factory*, June, 1925, p. 911:6¾.

An Investigation Into Some Problems of Polishing

The impression one receives on entering any kind of polishing shop is usually one of the dirty nature of the job. Although the dust in this particular factory under investigation was stated to be innocuous to health, yet in view of the depressing effect of the surroundings it was decided to change the operator's position so that the dust was no longer thrown into her face, and curtains were no longer needed.

The forty-five hour week in force comprised two unbroken spells of five and three hours respectively. The introduction of a regular ten-minute break at 10 A. M. in which the girls ate their lunch in a quiet room resulted in an increase of their output by 5.2 per cent.

A reduction of effort was accomplished by the introduction of a "holder" and of a new polishing method, resulting in 7.25 per cent gain in output.

Certain observations had led the investigators to believe that the buffs might be advantageously run at a higher speed, and experiments with a larger buff resulted in

an average increase in output of 8.1 per cent throughout the "life" of the buff.

The investigators designed a model buffing bench which was to secure for the polisher: 1. More comfortable posture; 2. better distribution of weight; 3. freedom from inhalation of dust; 4. more elbow room; 5. better cover for finished work; and 6. smoother flow of work from right to left.

The girls expressed to the investigators their appreciation of the equipment and the new working posture. By G. H. Miles and S. M. Bevington. *The Journal of the National Institute of Industrial Psychology*, April, 1925, p. 269:4.

Promises

The printing business is sometimes singled out as one in which promises are too frequently broken, but, on the other hand, there is hardly any business where outside influences have a greater effect. A certain metropolitan printer used to break promises frequently, but after several hard jolts he decided to solve the problem. Today he maintains in his plant what he calls a "Promise Board." On this board cards hang on hooks, each indicating a particular job, when it is promised, and also indicating the progress of the job through the shop. The superintendent of the pressroom has charge of it. To him come hourly reports which are checked on the cards. If a delay occurs he knows it at once and immediately takes steps to speed up the work, and if a problem arises which he cannot solve it is taken up with the chief executive. *The Value Mark*, June, 1925, p. 8:4.

Shop Organization: *Methods, Salvage, Waste, Job Assignments.*

Factory Losses and Wastes

Helpful suggestions in factory economy including raw material shrinkage before processing, economy of materials in processing, better planned and executed storage, the control of miscellaneous supplies, material moving equipment, fire loss reduction by fire prevention, reduction of cost of motor truck transportation, planning and facilitating factory traffic, packing goods for shipment, correct lubrication by schedule, stores department economies, lighting to correct standards, reduction of the use and waste of electricity and water, selection of most economical fuels, regulation of room temperatures and ventilation, location of toilets, drinking fountains and tool cribs, boiler room economy, and reduction

of the use and waste of compressed air. By Norman L. Sammis. *Industrial Management*, June, 1925, p. 321:8.

Management's Attack on Waste

The president of the General Electric Company discusses the problem of reducing selling prices so as to constantly reach a larger and larger circle of buyers. Lower costs do not necessarily mean lower earnings for the workmen. A suggestion system not only gives the worker a greater interest in his job, but often develops latent talent and ability for a bigger job. The most tragic waste of all industry is unemployment. By Gerard Swope. *Management and Administration*, June, 1925, p. 511:2.

BUYING, RECEIVING, STORING, SHIPPING

The Evolution of the Work of the Purchasing Agent

No longer does the purchasing agent of today treat salesmen as natural enemies; instead he regards them as real friends. Sharp practice and trickery have been eliminated to a great degree. Scientific forecasting has been of material aid to him and will so continue. Mr. Purchasing Agent measures up pretty well: keen, resourceful, powerful, a student of economics, possessed of a remarkable store of knowledge of raw materials and finished products, having a thorough knowledge of sources of supply and of conditions in the markets of the world. This represents an ideal modern purchasing agent. By Paul R. Brennan. *The Annals of the American Academy of Political and Social Science*, May, 1925, p. 63:6½.

The Dependence of Purchasing Upon Scientific Knowledge

In addition to the generally known records of a purchasing department an infor-

mation file attempts to keep as a permanent record all the information about each particular item. A somewhat similar historical record is kept of the experiences with various suppliers of each item. In order to buy intelligently, knowledge of price of any commodity is not sufficient; the reason for that price must be known. The leading trade papers must be read, and the purchasing division must subscribe to daily business papers, and avail itself of the service of such bureaus as Harvard, Babson's and Brookmire's. The purchasing agent first used just a plain price curve, but it is now believed that the price of any commodity is affected by three primary factors—the purchasing power of that commodity, demand and supply. Since 1920 executives have more fully realized the possibilities in the purchasing branch of their businesses with a resultant general improvement in personnel. This added efficiency will prove most useful in the competitive period ahead. By C. E. Devonshire. *The Annals of the American Academy of Political and Social Science*, May, 1925, p. 48:4½.

SALES MANAGEMENT

Sales Forecasting Helps Eliminate Peaks and Valleys

The benefits of scientific planning are so apparent that the matter should need no defense. Much of the astounding success of the American Radiator Company is due to an accurate anticipation of the coming changes in the business cycle. It is stated that the DuPont company is able to forecast its powder sales within 98 per cent of the actual. It is common knowledge that the American Telephone and Telegraph Company has been founded on an elaborate statistical analysis of its market. Although there are many other companies whose experiences demonstrate the value of sales planning the number after all is comparatively small.

An analysis of business depressions and booms shows that panics have been growing less severe and that the improvement will doubtless continue until the business cycle has been largely ironed out. By F. H. Dickinson. *Printers' Ink*, May 28, 1925, p. 113:3.

Some Important First Steps in Exporting

Many agencies stand ready to help American manufacturers through the first stages in export problems, the most obvious one being the Bureau of Foreign and Domestic Commerce. Since it is a government department, its services are free from all charges. Another purely governmental institution designed to foster international

trade is the Pan-American Union. The next source of export information and service is the semi-public Philadelphia Commercial Museum. In the field of co-operative organizations, the Foreign Trade Department of the National Association of Manufacturers offers unusually valuable assistance. Among other organizations which should be mentioned are the National Foreign Trade Council and the American Manufacturers' Export Association, the Foreign Credit Interchange Bureau, the Export Managers' Club of New York, the Boston Export Round Table, the Export Managers' Club of Bridgeport and the Foreign Trade Club of San Francisco. And in addition to this list, national trade organizations, in shoes, rubber and many other commodities, conduct successfully their own foreign trade departments which render an intimate and valuable service. By Walter F. Wyman. *Sales Management*, June 13, 1925, p. 866:4.

Saving \$1,000 Every Business Day

The organization which the Block and Kuhl Company set up to prune out the wastes in their business was an expense committee, composed of four junior members of the firm. Great amounts of illuminating information came out of the statistical reports which had been regularly gathered for years. The savings effected and the various policies followed are described in considerable detail. By H. T. Morgan. *System*, June, 1925, p. 741:6.

Sales Promotion: Letters, House Organs, Advertising.

What Shall We Put in Our Salesmen's Publication?

An analysis recently made of the contents of the *Ginger Jar*, the house organ of the American Multigraph Company, demonstrates that the most successful bulletins for salesmen are those which devote

a great portion of space to plans and methods and constructive suggestions for increasing sales efficiency. How a house organ becomes useful and secures interest through the use of many good photographs is also well illustrated by the *Ginger Jar*. Based upon a chapter from "The Selection

and Training of Salesmen," by H. G. Kenagy and C. S. Yoakum. *Sales Management*, May 30, 1925, p. 807:173.

Sales Correspondence Plans and Methods

Part I covers the following phases of correspondence work: Securing and following up inquiries; Truscon Steel Company's follow-up plan; national advertiser's plan for securing and following up inquiries; using consumer follow-up to line up jobbers; how Burlington Basket Co. sells jobbers and dealers; handling inquiries received from advertising; making the follow-up system watch where sales drop off; letters found best in sales correspondence; letter follow-up plan one year long; enclosures and mailing pieces; improving the call-up system; complete follow-up system on one card.

Part II contains a complete investigation of the use of dictating machines in 100 concerns. Special report of Dartnell Investigation No. 206. 28 pages.

Better Sales Literature

It is stated that thirty per cent of Berkeley and Gay's dealers "hitch on" to their national advertising. Other literature discussed includes: A direct advertisement by the James F. Newcomb & Company, Inc.; folders, mailing pieces and booklets from the Royal Electrotype Company; the Rockland and Rockport Lime Corporation; Butterick Publishing Company; Buffalo Evening News; the National Paper Box Manufacturers' Association; a house organ from the Guaranty Trust Company; mailing pieces used by the Aetna Life Insurance Company and a plan used by the Ediphone Company to encourage the interest in better letters. S. Roland Hall. *Sales Management*, May 16, 1925, p. 751:973.

Jacks or Better

One of the most successful contests ever held by the Packard Motor Company of New York was built around the idea of a poker game. It involved rivalry be-

tween salesmen and organization rivalry between distributors, and there were generous cash awards for the holders of lucky cards. Details are given as to how this contest was worked out. By Alexander Slavitt. *Sales Management*, May 30, 1925, p. 799:2.

Should the Sales Manager Control Advertising?

Many established companies are going down and many comparatively "mushroom" companies are coming up because of the relation of their sales management to their advertising. A large majority of those companies which have left the field to these other old concerns have gone out because of mismanagement, and nine times out of ten the mismanagement has been traceable to the sales end of the business. Today we are facing the selling problem at its hardest point, and the sales manager must direct his vision to that activity inseparable from selling, which is advertising. By M. L. Chapman. *Printers' Ink Monthly*, June, 1925, p. 19:2.

The Competition of Commodities

Advertising and sales promotion efforts of retail dry goods merchants might well take on a different slant. The point is brought out that a new attack is necessary because the conditions of competition are new. The commodities which are fiercely competing with the dry goods merchant for the family dollar are rolling up enormous volumes of sales, not by price appeal but an appeal to pride, to love of pleasure, amusement or excitement. Therefore, the merchandise of comparative necessities must seek and find some way to compete with the radio, the automobile, the motion picture theatre, and other countless sports and amusements. *Swatches*, June, 1925, p. 3:1.

The Maintenance of Quality Compelled by Advertising

The Fleischmann Company is a brilliant example of what advertising will accomplish in holding down price and keeping

up quality. People are realizing that advertising saves instead of increases costs and they appreciate this inexpensive method of gaining information about the things they have to buy. Concerns which distribute most economically to the con-

sumer and which offer the retailer a product upon which he can build repeat profits quickly are concerns that have adopted advertising as a definite part of their business program. By Ralph Crothers. *Printers' Ink*, May 28, 1925, p. 101:3.

Salesmen: Selection, Training, Compensation

Predicting Managerial Success: A Case Study of Two Business Men

Psychographs and general intelligence tests supplemented by a "will profile test" outline with considerable accuracy the attributes and capabilities of two chain store managers. Actual accomplishments checked with the results of the tests, showing that either: "A job can be equally well done by men of strikingly contrasted type, or things to be accomplished are not standardized. The general belief at present seems to be that for simple jobs, there is 'one best way'; whether or not this is true for the more complex jobs will take many studies to determine." By Marion A. Bills. *Journal of Personnel Research*, June, 1925, p. 46:5.

How to Compensate Salesmen in Seasonal Lines

The problem of how various companies manufacturing seasonal products handle the matter of compensation for salesmen who can sell during only a few months of the year is treated in this article. By James A. Worsham. *Printers' Ink Monthly*, June, 1925, p. 45:1½.

How Can We Direct the Work of Our Commission Salesmen?

The difficulty of a number of sales managers is in handling commission salesmen and in getting them to work regularly and consistently, as the commission arrangement does not give the firm proper control or authority. It is pointed out that sluggish activity on the sales force often means that it is the sales manager himself who

is failing to supply plans and ideas and constructive suggestions which will keep the men working at full capacity. How a number of sales executives are meeting this problem of keeping their commission men interested is described. By Eugene Whitmore. *Sales Management*, May 16, 1925, p. 731:2½.

Do Your Salesmen Grow Stale?

What is to be done with the branch manager or salesman who is growing stale on his job? Almost invariably he has been, and still is in large measure, a valuable man. There is the consideration of loyalty to him as an established employee. Some of the effective remedies are plain talk, shifts, guidance, the introduction of new blood to help—removal where necessary. By Charles C. Casey. *Brick and Clay Record*, May 12, 1925, p. 756:1¼.

Salesmanship

Sales Managers Who Live in the Past

The firm had lost five of its most progressive salesmen in a little less than three months. They were all young men who were "comers." One of the salesmen was interviewed on the subject. He said: "I got out because I could not get along with the sales manager. He is fifty-eight and competent. But in dealing with the younger fellows on the selling staff he insists that they follow a set of hide-bound rules which were in vogue when he was young. He lives continuously in the past.

"If a young salesman is to be made worth-while he must be encouraged in developing his own ideas and they can only come from his contacts with the hour, with modern methods and people." By W. R. Heath. *Printers' Ink*, June 18, 1925, p. 41:2¾.

Putting New Life Into an Old Business

An outline of the rejuvenation policies adopted by Devoe & Raynolds, Inc., with special emphasis upon the company's own stores as a means for educating the consumer, and a source of ideas and information for the company. This company has been able to eliminate the seasonal slump almost entirely; the business is now an all-the-year one. The effect of this spreading out of production through the year has been tremendous. It has lowered costs, re-

duced overtime and made for increased efficiency. In the main, the improvement has been accomplished by stimulating the demand for various inside finishes. This is really the consumer market and is therefore the one that is most susceptible to development. By John Allen Murphy. *Printers' Ink*, June 18, 1925, p. 3:5¾.

Summer Resorts as a Remedy for Drooping Sales Curve

The sales manager who goes after the business of the thousands of summer resort visitors may find in this market the means for keeping the sales curve from dipping during hot weather. Whatever its shortcomings may be, the resort hotel and resort store is a growing factor in summer sales. *Sales Management*, May 16, 1925, p. 767:2.

Survey of Books for Executives

Management Engineering. By P. F. Walker, M.M.E. McGraw-Hill, N. Y., 1924. 359 pages. \$3.50.

The field of the engineer in industrial affairs has broadened from that of a technical specialist in a staff position, or a supervisor of purely technical work, to contact with almost all branches of the business—planning, production, analysis of cost or quality, selling—demanding a working knowledge of such matters. Even the administrative positions controlling all these departments are being filled by engineers, some of whom have risen through technical positions, but many of whom have applied their technical education to the so-called non-technical branches of the business.

Dean Walker feels the need of including in the curriculum of an engineering college sufficient training in the economic and business elements of industrial management, so that the student may be prepared for a share in, or administration of, this field.

"Management Engineering" he considers to include "plant design and operation—reaching beyond the direct problems of production and process into the field of administration." Quoting from his outline of basic principles:

"Men of technical training and experience are coming more and more into positions where questions of financial policy and company organization are decided. They are applying to questions of business the methods of analysis characteristic of engineering practice. Their judgment is tempered by knowledge of the facts of process and operating technique. Their work is a blend of that of the mechanical engineer and that of the business man, with the first taking priority as the more fundamental. This fact justifies classing the service as a branch of engineering. The principles of business and finance are adapted, as the principles of physics and chemistry are adapted in the ordinary practice of technical engineering."

The book is suggestive or illustrative, presenting general principles and usual practice rather than new or radical ideas—intended for classroom work of technical students. It contains, however, descriptions and data of numerous actual cases of manufacturing, classified according to character of process, materials, market, labor conditions, etc., involved. Thus both abstract or general and concrete or special elements are treated, and exercises or problems presented for the student's use.

Part I covers Industrial Plants—study of controlling factors—analysis of industries according to dominant characteristics—plant design. Part II covers Organization and Administration—legal, financial, executive, and operating principles. In appendices are given digests and examples of contracts and incorporation forms—also an excellent bibliography.

The chapters on "Organization and Management" are particularly well presented, giving in a very clear and sound way the aims, methods, division of authority, and relation of the various positions or departments. The seven axioms laid down by Dean Walker are worth posting on the desk of any executive:

1. The Motives of the Administration are Bound to be Reflected in the Organization Plan.
2. Emphasize the Dominant Element in Production.
3. Authority and Responsibility Must Go Hand-in-Hand.
4. Distinguish Between Personal Control and Operating Technique.
5. Don't Make Places for Men.
6. Make All Organization Assignments Definite.
7. Be Fair.

In the chapter on Costs the importance of accurate cost accounting is emphasized with the statement that "The end and aim of management is to reduce the cost of production."

It does not seem likely that the average college student, lacking experience in ac-

tual industrial organizations, would get a very clear concept of the factors treated in the early chapters, unless his studies were supplemented by trips to actual plants. There is no question, however, that even limited acquaintance with the fundamentals of industrial management would be a big asset to the technical graduate entering industrial engineering work, particularly if he should expect to advance toward an executive position.

Dean Walker has furnished a valuable book for this purpose.

R. P. KING, *Works Engineer,*
E. Springfield Works,
Westinghouse Electric & Mfg. Co.

The Psychology of Selecting Men. By Donald A. Laird. McGraw-Hill, N. Y., 1925. 269 pages. \$3.00.

In this book the author assembles many of the practices in vogue today in employment work, discusses them, holds them up to the light and examines them, and differentiates between those that have merit and those that have little or no value. This survey of selection methods is presented in very readable and for the most part in non-technical language. The executive who wishes to gain a knowledge of the possibilities of careful selection of employees and the influence of the scientific method of approach upon dividend payments on the investment made in the employment department will find the book well worth reviewing.

The book gives actual examples from many fields of industry, discussing the problems involved, the methods employed in solving these, and the results attained. These presentations are generously illustrated with charts and blanks evolved by competent workers. Elementary statistical and psychological principles are presented whenever necessary for the complete understanding of the method under discussion. By the uninitiated the book might be used as a text book. To those who are familiar with the literature of psychology, mathematics and their application to the

employment problems of industry the book furnishes a record of attainment—summarizes things to date. If the author has done original work in the field of selecting men, he modestly does not record it, neither does he present any advance theories which are not accepted in general practice. His excellence in this book is rather in being a very careful compiler and critic of existing practices.

The fields of employment most extensively discussed are those of the factory and the office, with very little reference to the selection of men engaged in selling. Selecting salesmen is the last field attacked by the employment worker and consequently there is less available literature for review.

GERTRUDE V. COPE,
Walter V. Davidson Corporation.

The Investment Trust. By Lawrence M. Speaker. A. W. Shaw, Chicago, 1924. 112 pages. \$1.75.

A very useful summary presenting for the first time in book form in the United States the development of the investment trust, this volume won one of the prizes for monographs in the field of business development and the modern trust company offered in 1923 by the Chicago Trust Company. Mr. Speaker has described this institution of the investment trust in a way which will make it very interesting to American business men.

The investment trust is a British institution and has had great success in England. Its purpose is twofold: first, to enable British industries to get adequate capital and to expand British influence abroad through investment in the colonies and other countries, at the same time insuring adequate flow of goods to Britain and enabling British loans to earn good returns; and, secondly, to enable the great mass of people in Britain to invest their savings safely and to have assurance of a good return in their securities.

These purposes were accomplished by

the formation of an investment trust which was always a limited liability company. It sold its securities to the public and in turn invested the funds in many different enterprises. It made profits through wise investment, and its own shareholders by investing in its securities avoided chances of loss by poorly placed investments in many varied lines the status of which they are ignorant, because of the skill of the directors of the investment trust.

Mr. Speaker has traced the evolution of the investment trust in order to show the possibility for it in the United States. In his conclusion he indicates, however, that it has made only slight progress in the United States. This is because until recently we have been a borrowing nation and we have been so busy developing our own resources that we had little interest in foreign financing until after the war. Further, its development in America is likely to be gradual because of the risks involved, the fact that much development is to be done at home, and the ready distribution of foreign government and municipal bonds which is most of our foreign financing, through direct channels.

But in time the investment trust may well develop here because of a tendency to send our investment funds toward Canada, Latin-America and the Orient. Expert investment skill is needed and some form of indirect investment should be employed. In this and in other foreign and domestic financing the investment trust may well be of good use to American investors.

RUDOLF CLEMEN, *Economist,*
Illinois Merchants Trust Company.

Junior Business Training. By Frederick G. Nichols. American Book Company. New York, 1923. 229 pages. \$1.40.

The proper training for boys and girls in junior high schools, or continuation or part-time schools, in order to fit them to take their places in the world of business

and industry, has been a much debated matter. This book has been prepared to fill a need for such a text, and is divided into: Part I, dealing with various types of business service from the point of view of the consumer of such services. Part II is vocational in the sense that it provides a limited amount of occupational information and training in certain skills required in junior employments.

The text is accompanied by a blank book prepared for recording exercises found in the text book, and by a large number of forms which are commonly met in business, such as: a sample check-book, invoice file, imitation money for practice in making cashiers' change, etc.

Elements of Business Statistics. By Robert Riegel, Ph.D. Appleton, New York, 1924. 549 pages. \$4.00.

Here is an excellent book for men of affairs and students of our economic and social life—a book that places the emphasis on relationships between facts rather than on the facts themselves.

The facts of a business are of no value in themselves, but assume immense importance when expressed in relation to some common denominator, such as sales. It is not enough to say that the sales are good or the inventories large or the wages high; it is necessary to state how large, how small. To quote Dr. Riegel, "The sales of wire rods of a steel plant in 1920 take on an interest only when compared with the sales of 1919, or with the sales of another plant; the wages of carpenters in City A are interesting only in contrast with the wages of bricklayers or the wages of the same occupation in City B. As statistics become more interpretative and less descriptive in character, comparison becomes increasingly important."

Statistics, says the author, is logic applied to numbers. The chief value of this volume lies in the clear presentation of the reasoning processes back of statistical

procedure and the happy perspective which has correlated and evaluated the elements that enter into the correct description of a set of statistical facts.

The first eight chapters give a fitting setting or background for correct statistical reasoning. In the succeeding chapters follows a description of the correct thinking as applied to numbers.

What then are some of the elements that enter into a clear appreciation of statistical procedure? The first element is the appreciation that statistics concerns itself as much with thinking processes and adaptation of methods and classifications of materials as with correct mathematical operations. The second is an understanding of the aims of statistics in enlarging individual experience and presenting facts in a definite form, in furnishing a method of comparison and in indicating trends and tendencies. Still another element is the recognition of the statistical importance of the unit in collecting and tabulating facts. The utility of the statistical results obtained in an investigation must depend not only upon the accuracy with which the facts are collected, but also upon the appropriateness of the unit which is employed.

The next three chapters dealing with ratios and averages, their calculations and application, contain the tools of statistical thinking and deserve to be read by every man in business. In these chapters we have before us the uses and limitations of the arithmetic average, of the median, of the mode, and of the geometric average. These chapters show that to describe adequately a set of numerical facts it is necessary to know, first of all, the central tendency; second, the variability, the dispersion or the lack of uniformity; and, finally, the form of distribution, or the approach to or divergence from symmetry. The more complex applications or uses of types (arithmetic averages, modes, medians, etc.) are made in the chapters dealing with trends, cycles and seasons, and also in those on correlation and index numbers. Readers of the financial section of the

newspapers or magazines will find the two chapters on the principles of index numbers and the application of index numbers particularly valuable because they explain the various methods of building up index numbers and use several well-known indices for illustrative purposes.

The detailed table of contents, the ample bibliography at the end of each chapter and the complete index greatly enhance the value of this publication. Its logical arrangement, clear but brief presentation will undoubtedly commend it to those seeking a working knowledge of statistical procedure.

CHARLES A. HAMMARSTROM,
Organization Counsel,
Black, Starr & Frost.

Control of Credit as a Remedy for Unemployment. By J. R. Bellerby. P. S. King & Son, London, 1923. 120 pages. 3ds.

The first interesting thing about "Control of Credit as a Remedy for Unemployment" is the approach and point of view of the book. Major Bellerby is an Englishman who lost an arm in the war and is now on the staff of the Labor Section of the League of Nations. His book is published by the International Association of Unemployment. It is not usual for the student of unemployment to look to the field of credit for his remedy, and it is particularly unusual for such a student to look in that direction with such care and discrimination.

Major Bellerby's argument in brief is this: Unemployment arises from industrial instability. The maintenance of a stable price level is the most important single step towards industrial stability. Prices depend on the volume of currency and credit. The control of credit by the discount rates of central banks is the best means of stabilizing prices and therefore

of remedying unemployment. There should be international co-operation between banks of issue in conscious pursuit of that aim. Major Bellerby rests his argument at each point both on his own logic and extensive quotations from economists and banking authorities of many countries. It is a good piece of straightforward argument, well supported.

Concerning the main point of the argument—that there is a relationship between employment and bank discount rates—no denial can be entered and Major Bellerby performs a service in calling attention to this relationship and emphasizing it.

But concerning the closeness of the relationship and the particular manner in which it operates, there we enter on broad battlefields strewn with the dead and dying. No one really knows whether price changes are a cause or a result of the business cycle. Perhaps the cycle is rather a function of over and under-production, which in turn leads to price changes. Or again, if the connection between prices and the volume of credit is so close, how do we account for the coincidence last year of a 3 billion dollar increase in bank deposits in this country, with practically no increase in commodity prices except those of certain farm products? There are many similar, less discussed because less well understood questions, concerning the relation between the bank rate and the volume of credit. Many of these limitations Major Bellerby recognizes.

The upshot of the matter is that while there is a connection between bank rates and unemployment it is tenuous and remote. It is not subject to defined rules. In the long run a wise banking policy should assist in lessening somewhat the extent of booms and depressions, but we cannot yet hold the banking authorities responsible for every period of unemployment.

W. RANDOLPH BURGESS,
Assistant Federal Reserve Agent,
Federal Reserve Bank of N. Y.